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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08/907,182	08/06/1997	SHUNPEI YAMAZAKI	07977/023002	7978

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EXAMINER
DIAMOND, ALAN D

ART UNIT	PAPER NUMBER
1753	

DATE MAILED: 05/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	08/907,182	YAMAZAKI ET AL.	
	Examiner	Art Unit	
	Alan Diamond	1753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 April 2003* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *26-30,32-55,57-71,73-76,78,79,81-91,93-99 and 103-106* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *26-30,32-55,57-71,73-76,78,79,81-91,93-99 and 103-106* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *06 August 1997* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☒ Certified copies of the priority documents have been received in Application No. *08/623,336* .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *35,37* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Comments

1. The 35 USC 112, second paragraph, rejection has been overcome by applicant's amendment of the claims.

2. The obviousness-type double patenting rejections over U.S. Patents 6,242,290 and 6,399,454 have been overcome by the terminal disclaimer filed April 11, 2003 (Paper No. 36).

3. The obviousness type double patenting rejections over US Patents 6066518, 6156628, 6162704, 6197626, 6232205, 6303415, 6348368, 6355509, 6368904, 6420246, 6426276, 6432756, 6448118, 6458637, 6479333, 6399454, and 6242290 are expressly withdrawn by the Examiner in view of the fact that these patents do not teach or suggest instant independent claims 26, 34, 42, 51, 59, 67, 76, 82, and 86 which require that the gettering layer comprising phosphorous is formed over the semiconductor film that has been crystallized. Said patents introduce the phosphorous into the crystallized semiconductor film rather than form a layer over the semiconductor film. It is acknowledged that instant independent claims 81, 83-85, and 87-89 introduce the phosphorous. However, instant independent claims 81, 83-85, and 87-89 are patentably distinct from said patents because said patents do not introduce the phosphorous into the entire surface of the crystallized semiconductor and/or do not remove the entire surface after the gettering.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 105 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 105 is indefinite because the term "gettering element" at line 2 lacks positive antecedent support in claim 105's parent claims. It is suggested that said term be changed to "gettering material".

Double Patenting

6. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

7. Claims 81, 83-85, 87-91, 93-99, 104, and 105 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-62 of U.S. Patent No. 5,961,743. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instantly claimed method is taught and suggested the method in the claims of said patent.

8. Claims 81, 83-85, 87-91, 93-99, 104, and 105 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-52 of U.S. Patent No. 6,461,943. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instantly claimed method is taught and suggested the method in the claims of said patent.

9. Claims 26-30, 32-55, 57-71, 73-76, 78, 79, 81-91, 93-99, and 103-106 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over all of the claims of copending Application No. 09/939,767. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instantly claimed method is taught and suggested the method in the claims of said copending application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

10. Claims 26-30, 32-55, 57-71, 73-76, 78, 79, 81-91, 93-99, and 103-106 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over all of the claims of copending Application No. 10/074,050. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instantly claimed method is taught and suggested the method in the claims of said copending application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

11. Claims 26-30, 32-55, 57-71, 73-76, 78, 79, 81-91, 93-99, and 103-106 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-26 of U.S. Patent No. 6,544,826. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instantly claimed method is taught and suggested the method in the claims of said copending application.

Response to Arguments

12. Applicant's arguments filed April 11, 2003 have been fully considered but they are not persuasive. Applicant argues that claims 26, 34, 42, 51, 59, 67, 76, 82, and 86 require forming a phosphorous layer over the semiconductor film after crystallization, and that claims 81, 83-85, and 87-89 require that the gettering material is introduced into an entire surface of the crystallized semiconductor film. However, this argument is not deemed to be persuasive because the claims of U.S. 5961743, which now reject instant claims 81, 83-85, and 87-89 and their dependent claims, teach introducing the phosphorous "into at least a portion" of the crystallized semiconductor film. The "at least a portion" includes the entire surface. Indeed, note Figure 2B of U.S. 5961743, which shows introduction of phosphorous into the entire surface. Claim 9 of U.S. 5961743 teaches removal of the at least a portion after the thermal annealing.

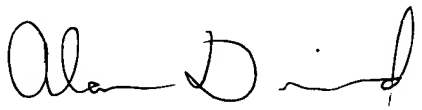
Note also that claim 1 of U.S. 6461943 introduces the phosphorous "to at least a region" of the crystallized semiconductor. The "at least a region" includes the entire surface.

The claims of copending application 09/939,767 and 10/074,050 form the gettering layer comprising phosphorous over the semiconductor film after crystallization. Furthermore, in the claims of US 6544826, a solution containing phosphorous is applied to the crystallized semiconductor. After a solution is applied, there inherently is a layer formed as here claimed.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alan Diamond whose telephone number is 703-308-0840. The examiner can normally be reached on Monday through Friday, 5:30 a.m. to 2:00 p.m. ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen can be reached on 703-308-3322. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



Alan Diamond
Primary Examiner
Art Unit 1753

Alan Diamond
May 8, 2003